REMARKS

This application contains claims 1-32. Claims 1, 9, 12, 15 and 25 have been amended, and claims 29-32 are hereby added. No new matter has been introduced. Reconsideration is respectfully requested.

Claims 1 and 15 were objected to for use of the term "in process." These claims have been amended to replace this term with "in progress," as suggested by the Examiner.

Claims 12 and 26 were objected to for depending from a rejected base claim, but were deemed to recite patentable subject matter. Applicant has therefore amended claim 12 to stand as an independent claim, incorporating the limitations of claims 1 and 11 from which it formerly depended. Applicant has amended independent claim 15 to incorporate the limitations of claims 25 and 26. Claim 9 has been amended to depend from claim 12, while claim 25 has been amended so that claims 25 and 26 now depend from new claim 31. Accordingly, amended claims 12 and 15 are believed to be in condition for allowance, as are claims 9, 16-24, 27 and 28, which depend from these amended independent claims.

Claims 1-3, 5-8, 10, 11, 13-17, 19-22, 24, 25, 27 and 28 were rejected under 35 U.S.C. 103(a) over Drake, Jr., et al. (U.S. Patent 5,461,611) in view of Chikenji et al. (U.S. Patent 6,639,893). Claims 4 and 18 were rejected over Drake and Chikenji in view of admitted prior art, while claims 9 and 23 were rejected over Drake and Chikenji in view of Chin et al. (U.S. Patent 6,314,110). Applicant has amended claims 1 and 15 in order to overcome this rejection. As noted above, amended claim 15 now includes the limitations of claims 25 and 26. Amended claim 1 incorporates the limitations of claim 9 along with additional clarifying language. This additional language is derived from paragraphs 0051 and 0052 in the specification of the present patent application as published (US 2002/0118700 A1), and is reflected in Figs. 3 and 4.

Drake describes a management system for local area networks. The management system receives requests from other stations on the network to reserve facilities for a data stream of a particular quality of service. If the requested facilities are available, an allocator in the management system reserves the facilities for the requesting station. Otherwise, the request is denied (abstract).

Chikenji describes a communication network in which two ring networks are connected by a pair of between-ring transmission lines. These lines are used in avoiding communication interruptions between ring networks due to faults (abstract).

Chin describes a system and method for distributed bandwidth allocation in a bi-directional ring network with spatial and local reuse. Chin's bandwidth allocation scheme allows the bandwidth of the ring to be statistically multiplexed among the nodes on the ring. No *a priori* bandwidth allocation is necessary, since each node senses the amount of traffic that it is forwarding and reports to the other nodes accordingly. Each node adjusts its own bandwidth based on the reports from other nodes (col. 3, lines 2-10).

Claim 1, as amended, specifies that resources are allocated to nodes in the network in predetermined quanta. As long as a given node (such as the first node recited in claim 1) has a sufficient amount of resources that have already been allocated to it, the node can use the resources to carry additional data flows over whatever path is appropriate. When the resources are insufficient, however, the node must request and receive an increased allocation. As noted in paragraph 0041 of the published specification, allocation of resources in quanta of this sort is useful in limiting the frequency with which allocation and deallocation operations must be performed. By contrast, in Drake's system, the nodes must request a reservation of facilities for each new data stream.

Original claim 9 in the present patent application recites increasing the allocation of a resource by a predetermined quantum. In rejecting this claim in the present official action, over Drake and Chikenji in view of Chin, the Examiner stated that although Drake and Chikenji do not disclose "increasing an allocation... by a predetermined quantum," this feature is disclosed by Chin (col. 11, lines 12-28). The cited passage in Chin describes methods for updating available and allocated bandwidth, in the context of a method by which nodes dynamically increase and decrease their fair share of bandwidth by statistical multiplexing. Chin notes that the advantage of his method is that it allows each node to send and receive bandwidth reports to the other nodes, and to adjust its own bandwidth accordingly without resort to a "ring master" (col. 3, lines 3-14).

This approach is diametrically opposed to that recited in amended claim 1, wherein <u>resources are specifically requested by the nodes and allocated to them in quanta,</u>

in order to reduce the communication and computing burden that are involved in frequently changing allocations. The approach of amended claim 1 is neither taught nor suggested by the cited art. Therefore, claim 1 is believed to be patentable. In view of the patentability of claim 1, claims 2-8, 10, 11, 13 and 14, which depend from claim 1, are believed to be patentable, as well.

Applicant has added new claims 29-32 in order to recite further aspects of the present invention that are related to resource allocation and deallocation. Claim 29, which depends from claim 13, recites explicitly that the allocation process is carried out by a dispatcher, in contrast to Chin's decentralized approach. Claim 30, which depends from claim 1, adds the recitation of a method for deallocating resources, which is likewise carried out in quanta. Deallocation is invoked when the amount of resources released exceeds a hysteresis threshold (as shown in Fig. 5 and described in paragraphs 0054-0056 of the present patent application). Claims 29 and 30 are thus believed to be patentable.

Claim 31 is an independent claim, which recites a communication network that operates on principles similar to those of the method of claim 1, as amended. Claim 32 depends from claim 31, and relates to deallocation of resources, in similar fashion to claim 30. Thus, for the reasons stated above, claim 31 is believed to be patentable, as are claims 25, 26 and 32, which depend from claim 31.

Applicant believes the amendments and remarks presented above to be fully responsive to all of the objections and grounds of rejection raised by the Examiner. In view of these amendments and remarks, all of the claims now pending in this application are believed to be in condition for allowance. Prompt notice to this effect is requested.

Respectfully submitted,

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